

Twenty years of EU Environmental Legislation after Maastricht: The increasing role of the EU as a global green standard-setter

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TWENTY YEARS OF EU ENVIRONMENTAL LEGISLATION AFTER MAASTRICHT: THE INCREASING ROLE OF THE EU AS A GLOBAL GREEN STANDARD-SETTER

1. Introduction

The achievement of a 'high level of environmental protection' is one of the constitutional aims of the European Union. It was with the Maastricht Treaty that the already on-going practice of developing environmental policies and legislation by the European Economic Community (EEC) was codified by recognising that 'a policy in the sphere of the environment' is one of the activities of the Community.¹ Nowadays the environmental domain is characterised by an enormous package of secondary laws aiming at greening Europe. Although progress has been made, there are still persistent problems regarding *inter alia* greenhouse gases, soil pollution, air pollution, and chemicals.

This chapter discusses the development of EU environmental legislation since the Maastricht Treaty. Section 2 will first discuss the environmental competence established by the Single European Act and the important amendments made to it by the Maastricht Treaty. The chapter then proceeds by discussing internal EU environmental legislation in view of coherency, regulatory choices, and compliance (Section 3). Section 4 reflects on the role of the EU in the field of global environmental governance, particularly the use of unilateral extraterritorial action in order to entice other countries to take more ambitious environmental action. A conclusion follows in Section 5.

2. The EU Environmental Competence in View of the Maastricht Treaty

The Maastricht Treaty builds on the competence for environmental policy that already had been introduced by the Single European Act (SEA). The SEA provided for a major move towards environmental protection by the Community since it

¹ Art. 3(k) EC Treaty (as amended by the Maastricht Treaty).

enabled the Council to adopt environmental measures; previously environmental measures were usually part of internal market measures (Article 100 EEC Treaty) or were adopted on the basis of Article 235 EEC Treaty. With the SEA the Council acquired an explicit basis to adopt pure environmental measures like air quality or water quality requirements.² However, such environmental measures had to be adopted with unanimity voting after consultation of the European Parliament.³ The Maastricht Treaty bolstered the environmental competence significantly by introducing qualified majority voting in Council.⁴ The role of the Parliament stayed however limited because the co-operation procedure was generally prescribed for the development of a European environmental policy, with the exception that for environmental action plans the co-decision procedure was made applicable.⁵

The SEA was also for another reason important for environmental policy making: it integrated environmental concern into the internal market, obliging the Commission to take a high level of protection as a basis for its harmonisation proposals.⁶ The SEA also enabled to a limited extent Member States to deviate from internal market harmonisation for the sake of the environment. In fact, the internal market competence was even more favourable for environmental policy making than the specific environmental competence of the SEA since for internal market measures the rule of qualified majority voting applied, while for environmental measures unanimity voting was required.⁷ The Maastricht Treaty finally made it easier for the Council to adopt measures on the basis of the environmental competence, by introducing qualified majority voting. However, for some areas the unanimity requirement is still applicable, with only consultation of the Parliament together with the Economic and Social Committee and (now) the Committee of the Regions. This concerns matters in the field of energy, town and country planning, and water management.⁸ To take energy as an example, 'measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply' require unanimity voting in the Council.⁹ The

² See for a discussion of the SEA in view of environmental policy: Davies 2004, p. 1-10.

³ Art. 130s(1) EEC Treaty introduced by the SEA: 'The Council, acting unanimously on a proposal from the Commission and after consulting the European Parliament and the Economic and Social Committee, shall decide what action is to be taken by the Community. The Council shall, under the conditions laid down in the preceding subparagraph, define those matters on which decisions are to be taken by a qualified majority'.

⁴ Art. 130s ECT as introduced by the Maastricht Treaty: 'The Council, acting in accordance with the procedure referred to in Article 189c and after consulting the Economic and Social Committee, shall decide what action is to be taken by the Community in order to achieve the objectives referred to in Article 130r'.

⁵ Art. 130s(1) ECT (as amended by the Maastricht Treaty) made a general reference to Art. 189(c), the co-operation procedure. Art. 130s(3) ECT (as amended by the Maastricht Treaty) provided the exemption for general action programmes.

⁶ Arts. 100a(3) and (4) EEC Treaty (SEA).

⁷ See Sheldon 1998.

⁸ See Art. 192(2) that has its origins in the Maastricht Treaty (Art. 130s(2)).

⁹ See also the reference in Art. 194 TFEU to Art. 192(2) TFEU.

Renewable Energy Directive,¹⁰ which imposes renewable energy targets on Member States in order to achieve, on balance, 20 per cent renewable energy consumption in 2020, is for instance based on Article 192(1) TFEU. In view of the need to take even more dramatic measures in view of the problem of climate change, the choice of the right legal base may become a sensitive matter, and the unanimity requirement as formulated in the Maastricht Treaty may become a barrier for future decision-making on the transition to renewable energy.¹¹

The Maastricht Treaty also improved the institutional balance in the field of market integration by introducing the co-decision procedure while in the field of the environment the co-operation procedure was taken as the main procedure. The Amsterdam Treaty finally introduced the co-decision procedure for environmental matters in 1997, thereby improving the position of the European Parliament. Now, under the TFEU, the procedures for environmental measures (Article 192 TFEU) and for internal market measures (Article 114 TFEU) are almost equal since the ordinary legislative procedure applies; the only exception is that the Committee of the Regions has to be consulted when a measure is based on Article 192 TFEU, while this is not obliged in case of internal market measures.

The Environmental Chapter to the EC Treaty and nowadays the TFEU is however not the only basis for adopting environmental measures. Following the SEA, the Maastricht Treaty provided that environmental concerns cannot be dealt with in isolation and hence have to be part of all Community decision-making.¹² This principle of external integration is expressed in the requirement that 'Environmental protection requirements must be integrated into the definition and implementation of other Community policies'.¹³ The Court of Justice firmly stated with regard to the slightly less strong formulated provision from the SEA that this provision 'reflects the principle whereby all Community measures must satisfy the requirements of environmental protection'.¹⁴ Consequently, environmental measures can be based on other legal bases in the Treaty, as was the case with trade measures regarding radioactive products intending to protect human health following the Chernobyl accident.¹⁵ The principle of integration of the

¹⁰ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L140/16.

¹¹ This transition can also be pursued by greenhouse gas emission reduction measures which do not directly regulate the energy structure, but such measures may also imply, in an indirect way, a significant influence on the choice between different energy sources. It will be interesting to see how future climate and energy measures will be based on respectively Arts. 192(1), 192(2) and 194 TFEU.

¹² 'Environmental protection requirements shall be a component of the Community's other policies' (Art. 130 r(2) SEA).

¹³ Art. 130(2) ECT as amended by the Maastricht Treaty. Strikingly, the Commission proposal for the Seventh Environmental Action programme wrongly states on page 31 that environmental considerations have to be integrated into other policies since 1997. This was already required as a result of the changes made by the SEA, which were strengthened in the Maastricht Treaty.

¹⁴ Case C-62/88 *Greece v Council* ('Chernobyl I') [1990] ECR I-1527, para. 20.

¹⁵ *Ibid.*

environmental concern in all policies of the Union has further developed and currently the provision in the TFEU reads: ‘Environmental protection requirements must be integrated into the definition and implementation of the Union policies and activities, in particular with a view to promoting sustainable development’.¹⁶ The concept of sustainable development – introduced as a supplement to the principle of external integration by the Amsterdam Treaty – is notoriously vague and hence difficult to interpret in view of legal consequences.¹⁷ Basically it requires that a balance is struck between present and future needs, and recognises the need to take account of different economic situations among countries, particularly among the developed and developing ones. The concept emerged in the context of international environmental governance by the United Nations (UN), but has clearly found its way into EU law by its codification in the Treaties. The legal effects of the concept remain rather limited thus far.¹⁸

One of the important amendments of the Maastricht Treaty which is still highly relevant nowadays was the strengthening of the mandate of the EU to deal with ‘supra-EU environmental problems’ by providing the explicit objective to promote measures at international level to deal with regional or world-wide environmental problems.¹⁹ This specific EU external environmental objective, introduced by the Maastricht Treaty, will be discussed in more detail in Section 4.

Another important innovation in the environmental competence brought by the Maastricht Treaty concerns the introduction of the precautionary principle.²⁰ This highly contested principle basically means that clear evidence of expected damage is not needed before protective action can be taken by the EU to address potential environmental risks.²¹ The codification of the principle by the Maastricht Treaty does not however mean that for instance in the field of climate change the highest protective measures have been taken.²²

¹⁶ The Maastricht Treaty introduced the ‘promotion of sustainable and non-inflationary growth respecting the environment’ in Art. 2 and in view of development co-operation ‘the sustainable economic and social development of the developing countries, and more particularly the most disadvantaged among them’ (Art. 130 u).

¹⁷ See Dhondt 2003.

¹⁸ See for an interesting recent but yet rare example where the Court approved an exemption to water quality protection in view of sustainable development Case C-43/10 *Nomarchiaki Aftodioikisi Aitolokarnanias a.o. v. Ipourgos Perivallontos a.o.* [2012] ECR I-0000.

¹⁹ Art. 130r fourth indent. The SEA provided in Art. 130r(5) that ‘Within their respective spheres of competence, the Community and the Member States shall co-operate with third countries and with the relevant international organizations’; this is continued with the Maastricht Treaty in Art. 130r(4). See for a discussion Davies 2004, p. 40-44.

²⁰ Art. 130r(2) ECT (in the Maastricht Treaty version), now Art. 191 TFEU: ‘Community policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Community. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay’.

²¹ See for instance the far-reaching analysis by Marchant & Mossman 2004. See furthermore Vos 2004 and De Sadeleer 2007.

²² Peeters 2013.

Next to these changes, a new element of the Maastricht Treaty was that the adoption of 'general action programmes', also known as environmental action programmes, became obligatory for the Council. Such environmental action programmes have to set priority objectives, and, moreover, the Council is obliged to adopt the measures necessary for the implementation of the programme. While the Maastricht Treaty introduced the co-operation procedure for environmental measures, it made an exception for the Environmental Action Programs for which the co-decision procedure became applicable, together with an obligatory consultation of the Economic and Social Committee (now also the Committee of the Regions, see Article 192(3) TFEU). Environmental action programmes have already been adopted without this legal mandate since 1973, but only since 'Maastricht' such action plans are indeed obligatory. The Maastricht Treaty and also the TFEU do not stipulate with which frequency such programmes have to be adopted. One can however argue that if an Environmental Action Programme mentions a time frame (e.g. ten years) a new action plan has to be provided when the ten years have passed. The current Sixth Action Plan was adopted on 22 July 2002 with a time frame of ten years. Meanwhile, the Seventh Action Programme is still in the process of being adopted: the Sixth Action Programme hence has not been timely followed by a subsequent one.

In sum, the environmental competence of the EU originates from the Single European Act and has developed via the Maastricht Treaty, the Amsterdam Treaty and the Lisbon Treaty into a broad competence to adopt environmental measures by means of the ordinary procedure with consultation of the Economic and Social Committee and the Committee of the Regions. The specific topics for which the Council can only decide with unanimity, together with a consultation of the Parliament, have been introduced by the Maastricht Treaty and are nowadays still applicable. Given the external integration obligation, already part of the Maastricht Treaty, environmental concerns have to be incorporated into other Union measures like in the field of transport and agriculture; with the Amsterdam Treaty it has even become necessary to pursue this integration in view of the concept of sustainable development. An important innovation from the Maastricht Treaty concerned the introduction of the precautionary principle, which in principle facilitates a more protective environmental policy but its interpretation and application lead to intense debates. Another important provision from the Maastricht Treaty is the explicit mandate to operate on the international level in view of environmental protection, thereby even taking care of extraterritorial issues. The Lisbon Treaty added to this mandate one specific global problem: climate change. The 'global environmental' mandate of the EU now reads: 'promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change'.²³ Before discussing this external competence we first turn in Section 3 to the vast package of internal environmental legislation within the EU.

²³ Art. 191(4) TFEU.

3. Greening Europe through Legislative Action

3.1. *Seeking Coherence in a Complex Domain*

On the basis of the provided competences the EU has produced hundreds of environmental secondary laws, mostly directives, providing an immense number of environmental obligations.²⁴ Environmental law is generally (like in national systems and also at the international level) very much characterised by technical and complex legislative approaches.

First and foremost, this follows from the fact that the protection of ‘the environment’ concerns a complex, wide domain, ranging from water, air, soil, noise, chemicals, species, landscape and so on and so forth. Furthermore, the domain of water for example can be subdivided into surface water quality, surface water quantity, groundwater quality and groundwater quantity. Water quality can furthermore be subdivided into the chemical status and the ecological status. This non-exhaustive explanation illustrates the complexity of the sub-domain ‘water’. Given the complexity and breadth of the whole environmental problem, the ideal of a clear, transparent, and easy to understand legislative package is illusionary.

Second, EU environmental legislation has not emerged along a predetermined, well-considered structure, but in a rather ad hoc way, often responding to upcoming environmental problems. An overarching structure providing common terminology and procedures for European environmental legislation is still missing. Literature has shown that there is not only a lack of coherence between definitions and scopes used in several directives, but it has also disclosed that multiple directives may be applicable to the same situation.²⁵

Thirdly, another noteworthy characteristic of the field of environmental law is that with the further development of science and technology, new environmental questions emerge which call for the consideration of how potential environmental and human health risks can be prevented, as is for instance the case with nanotechnology, genetically modified organisms, and biofuels. The still imminent problem of climate change – which emerged in the 1980s but still lacks an effective world-wide approach while also the EU unilateral approach is not ambitious enough – calls for a dramatic transition towards a low carbon society, for which law is a crucial instrument. However, it would be wrong to see law simply as a ‘plug and play’ feature, and the functioning and effectiveness of legislation can only be understood on the basis of an analysis of its wider legal context discussing the specific legal institutions, competences and principles.²⁶

Fourthly, quite some EU environmental law measures stem from single focused international treaty obligations, which means that the lack of coherence in international law might contribute to the lack of coherence of EU environmental law itself. In sum, the complexity and incomprehensiveness of the legislative package is

²⁴ Beijen 2011, p. 151 mentions the existence of 400 environmental directives.

²⁵ Beijen 2011, p. 163.

²⁶ Fisher, Lange, Scotford & Carlarne 2009, p. 233.

a core concern, particularly for authorities and private actors who have to work with it in practice. In this vein, we can see the emergence of specialists in the field EU water law, EU climate law, and EU nature conservation law.²⁷

Efforts have been undertaken by the European institutions to address these concerns. These have for instance taken the form of the adoption of so-called framework directives in order to achieve some coherency within certain domains, like in the area of water, air and waste.²⁸ For example, a Water Framework Directive was adopted in 2000 with the aim of integrating water legislation by replacing a number of directives with one comprehensive directive.²⁹ At the same time, the directive recognizes that there are diverse conditions and needs in the EU which require different specific solutions.³⁰ In view of this, the directive gives ample discretion to Member States who have to draw up programmes of measures adjusted to regional and local conditions. At the same time, literature argues that particularly some core provisions like the 'good water status' are complex and unclear.³¹ It is argued that although the Water Framework Directive has brought more coherence and uniformity to the body of EU water law, it has not become much clearer what each Member State is obliged to do.³²

Next to framework directives horizontal approaches may also improve the coherency of law. Horizontal approaches give one common provision applicable to several environmental sub domains. An example is the Environmental Liability Directive that provides common rules geared towards the prevention and restoration of environmental damage to nature, water and soil.³³ The thresholds for the applicability of the directive are however rather high, which means that for instance in case of damage to soil, it has to be considered whether the damage is severe enough to fall within the directive's scope of application. If not, autonomous national law provisions are applicable. This example shows that EU law can have a repercussion for the coherence of national law: for environmental liability, an EU or national regime applies depending on the severity of the damage at hand.

Attempts to make EU environmental legislation more coherent can never lead to one single clear and simple package of environmental norm: the environmental domain itself is inherently complex. The fact that environmental considerations have to be integrated into other policy domains on the basis of the principle of

²⁷ Fisher, Lange, Scotford & Carlarne 2009, p. 240-241.

²⁸ See in that respect Council Resolution of 7 October 1997 on the drafting, implementation and enforcement of Community environmental law [1997] *OJ* C321/1, where the Council invites the Commission to use framework directives in order to improve the coherence of environmental law. See about the potential meaning and character of Framework Directives, Prechal 2006, p. 15.

²⁹ Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy [2000] *OJ* L327/1, preamble 9.

³⁰ Water Framework Directive, preamble 13.

³¹ Lee 2009, p. 30.

³² Van Kempen 2012.

³³ Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (ELD) [2004] *OJ* L143/56.

external integration complicates the design of a coherent package of environmental standards even more. What the EU legislator at least can do is to co-ordinate new environmental laws with the already existing package and to provide where necessary adequate cross references.³⁴

3.2. *The Challenge of an Adequate Regulatory Approach*

The Maastricht Treaty removed the barrier of unanimity voting in the Council from the environmental competence, thereby enabling, at least formally, the adoption of many environmental laws. Environmental law is indeed an important instrument to steer the behaviour of private and public actors towards the desired level of environmental protection. The legal instruments for the EU legislator vary from decisions, directives and regulations, among which the directive, in line with the principle of subsidiarity, is most frequently used.³⁵ Quite some directives leave the regulatory instrument choice about how to steer the relevant actors to attain a certain environmental goal to Member States: this is for example the case with the reduction of air pollutants³⁶ and the promotion of renewable energy.³⁷ In such cases, the directive defines the environmental goal (like the percentage of renewable energy to be achieved in 2020) but leaves the Member State the choice of how to regulate its national society in order to achieve compliance with this goal.³⁸ Other directives however determine a common EU wide regulatory approach, as is the case with the EU greenhouse gas emissions trading instrument³⁹ and the integrated environmental permit.⁴⁰ These two measures prescribe the regulatory tool to be used, respectively emissions trading and integrated permitting. Environmental measures based on the internal market competence, like the regulation for chemicals, commonly referred to as REACH, are typically detailed by harmonizing the acceptance of products on the EU internal market.⁴¹ On balance, EU environmental secondary legislation contains a wide number of regulatory approaches, ranging from obligatory permits, environmental quality standards,

³⁴ See for an elaboration Beijen 2014.

³⁵ Art. 288 TFEU.

³⁶ Directive 2008/50/EC of the European Parliament and the Council of 21 May 2008 on ambient air quality and cleaner air for Europe [2008] OJ L152/1.

³⁷ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L140/16.

³⁸ Art. 288 TFEU.

³⁹ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC [2003] OJ L275/32, as amended (ET directive).

⁴⁰ Introduced with Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control [1996] OJ L257/26, superseded by Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast) [2010] OJ L334/17.

⁴¹ Regulation (EC) No. 1907/2006 of the European Parliament and the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) [2006] OJ L396/1.

emission limit values, labelling, taxation and emissions trading, the designation of areas, and so on and so forth. All these regulatory approaches have their own specific characteristics and potential legal problems. This diversified ‘instrument package’ is a core characteristic of EU law.

The use of different instruments can lead to shifts of pollution between several environmental domains (for instance less air pollution but more water pollution). The EU has tried to address this negative consequence of fragmentation by introducing the instrument of integrated permitting, meaning that the whole environmental performance of an industry should, as an ideal, be regulated by a single permit system. The Integrated Pollution Prevention and Control Directive⁴² (IPPC Directive) from 1996 established the idea that the main sources of industrial pollution in the EU have to minimize their adverse impact on the ‘environment as a whole’.⁴³ In order to reach the desired level of environmental protection, the directive obliges a command and control approach since Member States have to specify permit conditions, in particular emission limit values, on the basis of the ‘best available techniques’.⁴⁴ The best available techniques serve in this respect as a tool to reach the desired environmental protection through integrated permits. This directive has been re-cast in 2010, meaning that in total seven directives have been re-ordered into one directive, the Industrial Emissions Directive.⁴⁵ The preamble to this new directive specifically refers to competitive positions by stating that the integrated approach will contribute to the achievement of a level playing field in the Union by aligning environmental performance requirements for industrial installations.⁴⁶ The equalisation of environmental performance requirements in the EU does not however necessarily lead to efficient environmental protection if the case-specific technical and environmental circumstances of installations throughout the EU will not be taken into account. In this sense, European integration takes place by aligning the environmental performance standards of industries, which

⁴² Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control [1996] *OJ* L257/26, codified by Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control [2008] *OJ* L24/8. This Directive will be replaced by Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast) [2010] *OJ* L334/17 as of 7 January 2014.

⁴³ The aim of considering the ‘environment as a whole’ appears at many instances in Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control [2008] *OJ* L24/8 and Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast) [2010] *OJ* L334/17.

⁴⁴ For a definition, see Art. 2(12) of Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control [2008] *OJ* L24/8 and Art. 3(10) of Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast) [2010] *OJ* L334/17.

⁴⁵ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast) [2010] *OJ* L334/17.

⁴⁶ *Ibid.*, preamble point 3.

does not necessarily mean that an environmental approach is being reached at lowest costs.⁴⁷

Different from the rise of framework directives and integrated permitting, an almost incomprehensible package of laws has been established in the field of climate and energy with moreover remarkable (not necessarily beneficial) interplays between the instruments.⁴⁸ The question is valid whether the EU has adopted here an appropriate instrument mix, or is in fact applying an instrument mess.⁴⁹

3.3. Compliance

EU environmental law is very much characterised by noncompliance by Member States. With the Treaty of Maastricht an attempt to improve the enforcement mechanism was undertaken by providing the possibility for the Court to impose a lump sum and a penalty payment on a Member State that did not take the necessary measures to comply with its previous ruling. Nonetheless, these mechanisms did not prevent large noncompliance by Member States in the environmental field. This field was one of the four most infringement-prone areas in 2011, and almost half of the Article 260(2) TFEU infringement procedures in 2011 related to the environment.⁵⁰ Moreover, by the end of 2011, 56 Court judgments still had to be implemented by Member States.⁵¹ Enforcement of EU law by citizens is rather limited, since directive provisions are often not sufficiently precise and unconditional to produce direct effect. This means that the infringement procedure is a crucial instrument for enforcing EU environmental law. The Treaty of Maastricht has introduced the possibility for the Court to impose a lump sum and a penalty payment on a Member State that did not take the necessary measures to comply with its previous ruling.⁵² This has led to environmental cases in which both lump sums and financial penalties have been imposed.⁵³ However, the threat of financial sanctions seemingly does not have a sufficient deterrent effect on Member States. Next to that, the Court is showing willingness to take economic circumstances into account: an example is that the determination of a lump sum to be paid by Ireland was done in view of trends in inflation and the actual GDP at the time of the Court's examination of the facts.⁵⁴

Most likely there will be a number of reasons for noncompliance by Member States, one of which is the complexity of the directives. Moreover, secondary environmental legislation often contains standards to be reached in the future, like

⁴⁷ Oosterhuis & Peeters 2014.

⁴⁸ Sorell & Sijm 2003, p. 434 who state that 'a policy mix may easily become a policy mess'.

⁴⁹ See about complexity also Van Rijswijk 2012, p. 4, who distinguishes among *inherent* and *unnecessary* complexity.

⁵⁰ European Commission, 29th Annual Report on Monitoring the Application of EU Law 2011 COM(2012) 714 final, 10-1.

⁵¹ *Ibid.*, 51.

⁵² Art. 171(2) ECT after Maastricht; now Art. 260(2) TFEU.

⁵³ See Jans & Vedder 2012, p. 176-178. In Case C-304/02 *Commission v France* [2005] ECR I-6263. A simultaneous imposition of both measures was decided.

⁵⁴ Case C-279/11 *Commission v Ireland* [2012] ECR I-0000.

air quality goals or renewable energy goals, which have to be reached in for instance five or ten years. Steering a national society towards compliance with such a target is a complex process for which a robust and adequate national approach has to be developed. In some instances, directives provide the Commission with instruments that enable an early (in fact an *ex ante*) control in order to check whether Member States are on track to reach the target. For instance, in several directives ‘trajectories’ have been defined to which Member States should adhere in order to become compliant with the ultimate target. Such a trajectory indicates the progress that Member States have to show in the period running up to the deadline for reaching the target. In case a Member State cannot comply with the trajectory, the Commission may intervene with certain provisions. This can be illustrated by two different examples.

The first example concerns the Renewable Energy Directive (RED),⁵⁵ which obliges each Member State to achieve a specified amount of renewable energy consumption in 2020. According to Article 4 RED, each Member State had to submit a national renewable energy action plan by 30 June 2010 in order to explain how it intends to reach the targets in 2020. This means that Member States had to submit such plans already ten years before the compliance year. At the same time, an ‘indicative trajectory’ applies to which Member States have to adhere; this concerns a gradual path towards the required renewable energy obligation. In case a Member State performs below this trajectory, it has to ‘submit an amended national renewable energy action plan to the Commission by 30 June of the following year, setting out adequate and proportionate measures to rejoin, within a reasonable timetable’.⁵⁶ In case a Member State does not submit such a plan, the Commission can start infringement proceedings. In this way, the Commission may thus be able to start enforcement actions in case of short-falling behaviour even before the date of the ultimate target.

A second, and more far-reaching, example can be found in the Effort Sharing Decision.⁵⁷ This Decision imposes greenhouse gas emission targets on Member States, which contributes to the overall EU climate policy aim to achieve 20% greenhouse gas emission reduction in 2020 compared to 1990.⁵⁸ Each Member State needs to comply with a specified emission reduction target in 2020. Also in this case a trajectory has been defined in the form of annual emission limits.⁵⁹ Should a

⁵⁵ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L140/16.

⁵⁶ *Ibid.*, Art. 4(4).

⁵⁷ Decision 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community’s greenhouse gas emission reduction commitments up to 2020 [2009] OJ L140/136 (ESD).

⁵⁸ Together with other measures like the EU emissions trading scheme and the Renewable Energy Directive.

⁵⁹ See the definition in Art. 3(2) of Decision 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community’s greenhouse gas emission reduction commitments up to 2020 [2009] OJ L140/136 (ESD).

Member State's emissions exceed the allowed annual limit, a range of measures 'shall apply', among which the submission of a 'corrective action plan' but also a deduction in the following year of the allowed emissions equal to the amount in tonnes of carbon dioxide equivalent of those excess emissions, multiplied by an abatement factor of 1.08.⁶⁰ Hence, the Effort Sharing Decision formulates an automatic sanction in case of insufficient performance during the trajectory towards the final target.

In addition to these ex ante control provisions, an interesting aspect is that both the Renewable Energy Directive and the Effort Sharing Decision provide so-called flexibility provisions. Such provisions allow Member States that do not comply with their target to negotiate with Member States that 'over comply' (hence, do more than legally obliged) in order to reach, on balance, full compliance by using the compliance surplus from the other Member State to cover its own compliance deficit.⁶¹ These flexibility provisions combined with the ex ante control by the Commission aim to facilitate better compliance, but they will certainly lead in the course of their implementation to new political and legal questions. Under what circumstances are Member States willing to start negotiations to cover a compliance deficit or to sell a compliance surplus? Under what conditions will such trading be done? Can the Commission expect a short-falling Member State to engage into an agreement with an over-complying state? What loyalty should be expected from an over-complying Member State with Member States that face severe problems for reaching compliance? And, how will the Court take account of the availability of such flexibility provisions (including the potential costs) in case a Member State turns out to be in non-compliance with the final target in the context of an infringement procedure? It will be interesting to see how this debate will take place and how the legal conditions for such flexibility provisions will crystallise. However, no targets have been set for the period after 2020. One might expect that problems with compliance in the period until 2020 will have repercussions on the readiness to achieve even stronger targets for the period after 2020.

Ultimately, it is not the Member States that cause all environmental harm, but predominantly private actors. EU law has emerged into a strengthening of provisions to address polluters with the Directive on Environmental Liability⁶² (2004/35) and the Directive on the protection of the environment through criminal law.⁶³ In the Environmental Liability Directive a special position has been provided for environmental organisations to address the government in case it fails to take

⁶⁰ Art. 7 (entitled: corrective action).

⁶¹ Arts. 3 and 5 of Decision 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 [2009] *OJ* L140/136 (ESD).

⁶² Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (ELD) [2004] *OJ* L143/56.

⁶³ Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law [2008] *OJ* L328/28.

action in order to hold the polluter responsible for preventative and restoration duties.⁶⁴ Indeed, the position of private actors and Environmental NGO's for the enforcement of environmental law, as third parties, is an important characteristic of environmental law, and has been strengthened particularly with the Aarhus Convention, particularly Article 9(3) thereof, to which the EU and all its member states are a party, and also with concrete provisions like in the Environmental Liability Directive. This may however not yet be enough, and close attention to compliance with the Aarhus Convention by both the EU institutions and the Member States, but also to the proper implementation of the Environmental Liability Directive in day-to-day practice, is strongly needed.

4. Greening the World

The Maastricht Treaty stipulated the competence of the EU to promote environmental measures at the international level.⁶⁵ The explicit objective to deal with regional or world-wide environmental problems made it easier for the EU to enter into international environmental agreements even without having adopted internal legislation.⁶⁶ Moreover, such international measures may address problems that go beyond the EU's territory: one can think of the protection of the ozone layer or the reduction of greenhouse gases in order to mitigate global warming. In fact, the EU already became a party to treaties dealing with these global problems even before the Maastricht Treaty entered into force.⁶⁷

The EU and its Member States are nowadays party to many international environmental agreements covering a wide range of environmental concerns. Given the shared competence, such environmental treaties are often mixed agreements.⁶⁸ Multilateral environmental treaties often contain obligations to protect environmental quality within the EU but also include procedural requirements for instance with regard to environmental impact assessments (Espoo Convention) and

⁶⁴ Art. 12 of Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (ELD) [2004] OJ L143/56.

⁶⁵ See further Jans & Vedder 2012, p. 34 and p. 37-41.

⁶⁶ See for previous international Community action on the basis of the implied powers doctrine, Jans & Vedder 2012, p. 64 *et seq.*

⁶⁷ The Vienna Convention and Montreal Protocol (both concerning the ozone layer) date from 1985 and 1987, while the conclusion of the UNFCCC (the climate change treaty) dates from 1992, hence just before the entry into force of the Maastricht Treaty.

⁶⁸ In view of Art. 216(2) TFEU an international agreement, adopted and ratified by the EU, becomes part of EU law which means that it is binding both on the EU as on the member states. In case of a mixed agreement, a declaration to the Treaty explains to what extent the EU and respectively the member states can be held accountable. This did not prevent the CJEU from deciding whether a Treaty obligation for which Member State would be responsible has direct effect. See on that matter Case C-240/09 *Lesoochránárske zoskupenie VLK v Ministerstvo životného prostredia Slovenskej republiky* [2011] ECR I-1255.

procedural rights (Aarhus Convention).⁶⁹ The promotion of global environmental governance by means of multilateral environmental treaties that establish decision-making bodies and compliance committees connects with what the EU essentially is: the establishment of an international organisation in order to promote human well-being, including a high level of protection of the environment.⁷⁰ The 'constitutionalisation' of international law can hence be seen as a target that – along with the wish to establish environmental protection – fits to the fundamentals of the EU itself: the EU has indeed an explicit objective to achieve a high level of environmental protection across its Member States and the Treaties provide legislative and enforcement competences for reaching this aim. The attempt of the EU to build environmental governance also on the global level has led the EU to argue that trade restrictions in multilateral environmental agreements constituting global environmental governance should be protected from challenges from the WTO.⁷¹ In the meantime, EU and Member State participation in international agreements has a huge impact on the content of internal environmental measures: already in 2000 the Commission stated that one third of Community environmental policy aims to implement legally binding international agreements.⁷²

As already mentioned in Section 2, the Lisbon Treaty added to the objective to promote international measures the following statement: 'and in particular combating climate change'.⁷³ This highlights the practice of the EU that conducts, in comparison to countries across the globe, a rather ambitious greenhouse gas reduction policy.⁷⁴ One can wonder to what extent this specific emphasis stipulates that climate change is of a higher priority than other worldwide problems like the loss of biodiversity, marine degradation or nuclear waste. If it indeed can be seen as prioritising action for climate change, one can wonder on the basis of which scientific considerations this is being done. Most likely, the mentioning of 'climate change' in the external mandate resembles the political willingness of the EU to continue with its intention to play a leading role in the international negotiations on climate protection.⁷⁵

With the rise of global environmental problems like ozone depletion, marine pollution and climate change the EU has tried to manifest itself as a global actor, trying to set an example for the decision making in other countries or on the international level.⁷⁶ However, difficulties with regard to a proper representation of

⁶⁹ Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991) and Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus, 1998).

⁷⁰ Vogler 2005, p. 838.

⁷¹ Vogel 2004, p. 239; Vogler 2005, p. 846.

⁷² European Commission, 'Europe's Environment: What directions for the future?', COM(1999) 543, 19.

⁷³ Art. 191(1) TFEU.

⁷⁴ Peeters 2013.

⁷⁵ See in this context the critical observations by Kramer 2007, p. 474 on the general short-falling international performance by the EU.

⁷⁶ See for some examples Davies 2004, p. 42-44. See about the frontrunner role of the EU taking over from the US, Vogel 2004. More critical is Kramer 2007.

the EU at the international level, including difficulties for reaching a common position before entering the negotiations, and the different positions taken by Member States during the international deliberations, entail severe limits for becoming an effective player.⁷⁷ Next to this, the EU is not always allowed to become a party to environmental treaties or is not recognized as a full participant to international organisations.⁷⁸

A well-known characteristic of international environmental law, particularly regarding the multinational environmental agreements, is that the ambition towards environmental protection often remains rather weak. The international approach to the protection of the ozone layer is a well-known exception since it established a successful approach, but in the case of climate change the international performance falls short to a great extent. The EU however wants to move forward with climate protection, and already adopted in 2009 further-reaching greenhouse gas emission reduction targets compared to the international level.⁷⁹ In view of that, the EU has established requirements in its secondary legislation that also have an impact on actors outside the EU. The increase of internal measures with consequences for third country actors is hence an important new phenomenon in EU environmental policy, particularly climate policy.⁸⁰ The Treaty mandate does not explicitly include the adoption of *unilateral* measures in order to preserve the global environment (in this case the climatic situation), and one can easily imagine the criticism against the extraterritorial influence that the EU is willing to have. One striking example of unilateral action having an impact on the global environment and on third parties is the inclusion of international aviation operators into the EU greenhouse gas emissions trading scheme established by the Emissions Trading Directive.⁸¹ This measure is applicable to flights landing or departing in the EU, including flights coming from for instance Beijing, New York or Dubai. The flight operator, which can be *inter alia* Chinese, South-African or Indonesian, has to count the greenhouse gas emissions of the whole flight, hence also the flight outside the EU, and has to surrender corresponding greenhouse gas allowances to competent authorities in Member States. If not, enforcement action has to be taken, at least

⁷⁷ See for the relevance of the duty of loyal cooperation Case C-246/07 *Commission v Kingdom of Sweden* [2010] ECR I-3317, discussed by Fajardo del Castillo 2010.

⁷⁸ See for treaties: Hedemann-Robinson 2012, p. 3, see about the fact that the EU can only act as an observer in UN sponsored environmental conferences unless it can realise a specific position through negotiation: Vogler 2005, p. 844. See also specifically Lefevere 2009 and generally De Witte 2009, p. 277.

⁷⁹ A 20 per cent emission reduction target in 2020 compared to 1990 has been established by the 1) Effort sharing decision: Decision 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 [2009] OJ L140/136 (ESD) and 2) Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community [2009] OJ L140/63. Scott 2011.

⁸⁰ Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L8/3.

according to the Emissions Trading Directive, ultimately leading to a ban from operating.⁸² The EU has put in its directive a condition stipulating its willingness to amend the obligations for third country operators in case their government adopts measures to reduce the climate change impact of aviation.⁸³ The Commission has a delineated competence to provide for amendments to the obligations of aviation activities which are required by an agreement with such a third country.⁸⁴ The directive does not provide clarity on the form and intensity that the measures by third countries should have before third party aviation companies may be relieved from EU obligations by a change of the directive or by the Commission in case an agreement has been reached. In other terms, the conditions under which the EU is willing to reach a bilateral agreement regarding a commitment by a third country to reduce greenhouse gas aviation emissions are not clarified in the legal text.

This unilateral extraterritorial action by applying the internal emissions trading scheme to third country actors has not been spared from international political protest: fierce protest has arisen in *inter alia* the USA, India and China.⁸⁵ Three American aviation companies together with the Air Transport Association of America brought proceedings in the UK against the national implementing decisions, which led to a preliminary ruling by the CJEU focusing on the compatibility of the EU measure with international law. After examining principles of customary law and the provisions of several international treaties, the CJEU considered that there was no factor that affected the validity of the directive.⁸⁶ This Court decision however did not lead to less protest coming from third countries. Noticing that other countries like the USA adopt national measures to forbid their industries from complying with the EU legislation, the European Commission has decided to propose an amendment to the Emissions Trading Directive in order to avoid enforcement by Member States. The amendment contains a temporary derogation in the sense that action is not taken by Member States against aircraft operators which do not meet the Directive's reporting and compliance obligations arising before 1 January 2014 in respect of incoming and outgoing EU-flights.⁸⁷ The

⁸² See Art. 1(14) of Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L8/3 (amending Art. 16 of Directive 2003/87).

⁸³ Art. 1(18) of Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L8/3 (introducing Art. 25a into Directive 2003/87).

⁸⁴ *Ibid.* Such provisions may only amend non-essential elements of the directive.

⁸⁵ ENDS (Europe's environmental news and information service), Anti-ETS countries agree counter-measures, <<http://www.endseurope.com/28228/antiets-countries-agree-counter-measures>>, Wednesday 22 February 2012.

⁸⁶ Case C-366/10 *Air Transport Association of America and others v Secretary of State for Energy and Climate Change* [2011] ECR I-0000. See for a critical discussion Bogojević 2012.

⁸⁷ It concerns aircraft operators that either not have received, or have returned, their share of the 2012 free allowances granted to meet the obligations for flights to and from third countries and Europe based on the verified tonne kilometres data of the reference year 2010; Aircraft operators who wish to continue to comply with those requirements should be able to →

official explanation in the proposal for this derogation is that ‘significant progress was made’ during the meeting of the International Civil Aviation Organisation in November 2012, and that the derogation for incoming and outgoing flights under the EU emissions trading scheme is needed to enhance the chance of a successful outcome of the 2013 ICAO Assembly.⁸⁸ Hence, the Commission is proposing to suspend enforcement action by Member States for the year 2013 but to move on with the unilateral approach in case international negotiations do not turn out to be successful. What exactly should be understood by a successful outcome remains unclear, since the proposal only hints at ‘developing a global market-based measure (MBM) and adopting a framework facilitating States’ application of market-based measures to international aviation’ and about ‘clear and sufficient progress’.⁸⁹ The intensity with which the carbon emissions from aviation at least have to be addressed with the international measures has not been stipulated in the proposal.

The readiness of the EU to act unilaterally like in the aviation case to promote effective climate (or other environmental) governance elsewhere in order to mirror internal action will most likely be a source of legal discussion in the coming years. Ultimately, the EU cannot achieve global environmental governance on its own and is dependent on the will of other countries and actors. It will be highly interesting to see in the near future how far law permits unilateral extraterritorial action by the EU for greening the world, and to what extent the EU will act evenly ambitious towards global environmental concerns other than climate change.

5. Conclusion

The Maastricht Treaty has provided the European Union with the task of promoting measures at the international level to deal with regional or world-wide environmental problems. The EU has indeed contributed to global environmental governance by becoming a party to many international environmental agreements. The inclusion of flights conducted outside EU territory in the EU greenhouse gas emissions trading scheme applicable to EU and non-EU aviation operators is a striking example of how the EU tries to green the world with unilateral action in case global environmental governance falls short. The exploration of the legal boundaries for such unilateral action with extraterritorial consequences will be an interesting legal debate in the next years.

The Maastricht Treaty was also important from an internal point of view: it eased the adoption of environmental legislation by introducing qualified majority voting for environmental measures in the Council. The institutional balance with the European Parliament was further enhanced with the Amsterdam Treaty which

do so: European Commission, Proposal for a Decision of the European Parliament and of the Council derogating temporarily from Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community, COM(2012)697, Art. 1. Core obligations apply already in March 2013 and April 2013, while the proposal dates from 20 November 2012.

⁸⁸ *Ibid.*, 2.

⁸⁹ *Ibid.*

made the co-decision procedure applicable. The specific environmental topics for which, according to the Maastricht Treaty and, as an exception, unanimity in the Council had to be reached are still the same, which shows that on specific matters like water quantity management, town and country planning and energy issues Member States are reluctant to give away their veto right.

In the meantime, EU environmental legislation has evolved into such a vast and complex package of different regulatory strategies that its 'executability' has become a tremendous challenge. Short-falling compliance by Member States concerning the implementation of environmental directives has become a big concern, even in view of the fact that the Maastricht Treaty strengthened the infringement mechanism by introducing the possibility for the Court to impose a lump sum and a penalty payment on a Member State that did not take the necessary measures. Hence, the credibility of the EU as a global environmental actor will most likely go hand-in-hand with the question of how the EU – as an international organisation in itself – succeeds in getting its laws effectively implemented in its own legal order.

Bibliography

Beijen 2011

Beijen, B.A., 'The Implementation of European Environmental Directives: Are Problems Caused by the Quality of the Directives?', *European Environmental Law Review*, 2011, Vol. 20, p. 150-163.

Beijen 2014

Beijen, B., 'Seeking Coherence Among Environmental Directives', in Peeters, M. & Uylenburg, R. (eds.), *EU Environmental Legislation: Legal Perspectives on Regulatory Strategies*, Cheltenham: Edward Elgar, forthcoming 2014.

Bogojević 2012

Bogojević, S., 'Legalising Environmental Leadership: A Comment on the CJEU's ruling in C-366/10 on the Inclusion of Aviation in the EU Emissions Trading Scheme', *Journal of Environmental Law*, 2012, Vol. 24, p. 345-356.

De Sadeleer 2007

De Sadeleer, N. (ed.), *Implementing the Precautionary Principle*, New York: Routledge, 2007.

De Witte 2009

De Witte, B., 'International Law as a Tool for the European Union', *European Constitutional Law Review*, 2009, Vol. 5, p. 265-283.

Davies 2004

Davies, P.G.G., *European Union Environmental Law*, Farnham: Ashgate, 2004.

Dhondt 2003

Dhondt, N., *Integration of Environmental Protection into other EC Policies*, Groningen: Europa Law Publishing, 2003.

Fajardo del Castillo 2010

Fajardo del Castillo, T., 'Revisiting the External Dimension of the Environmental Policy of the European Union, Some Challenges Ahead', *Journal of European Environmental and Planning Law*, 2010, Vol. 7, p. 365-390.

Fisher, Lange, Scotford & Carlarne 2009

Fisher, E., Lange, B., Scotford, E. & Carlarne, C., 'Maturity and Methodology: Starting a Debate about Environmental Law Scholarship', *Journal of Environmental Law*, 2009, Vol. 21, p. 213-250.

Hedemann-Robinson 2012

Hedemann-Robinson, M., 'EU Enforcement of International Environmental Agreements: The Role of the European Commission', *European Energy and Environmental Law Review*, 2012, Vol. 21, p. 2-30.

Jans & Vedder 2012

Jans, J. & Vedder, H., *European Environmental Law*, 4th edn., Groningen: Europa Law Publishing, 2012.

Kramer 2007

Kramer, L., *EC Environmental Law*, 6th edn., London: Sweet & Maxwell, 2007.

Lee 2009

Lee, M., 'Law and Governance of Water Protection Policy', in Scott, J. (ed.), *Environmental Protection: European Law and Governance*, Oxford: Oxford University Press, 2009, p. 27-55.

Lefevere 2009

Lefevere, J., 'A Climate of Change: An Analysis of Progress in EU and International Climate Change Policy', in Scott, J. (ed.), *Environmental Protection: European Law and Governance*, Oxford: Oxford University Press, 2009, p. 171-211.

Marchant & Mossman 2004

Marchant, G. & Mossman, K.L., *Arbitrary & Capricious: The Precautionary Principle in the European Union Courts*, Washington: American Enterprise Institute for Public Policy Research, 2004.

Oosterhuis & Peeters 2014

Oosterhuis, F. & Peeters, M., 'Limits to Integration in Pollution Prevention and Control', in Peeters, M. & Uylenburg, R. (eds.), *EU Environmental Legislation: Legal Perspectives on Regulatory Strategies*, Cheltenham: Edward Elgar, forthcoming 2014.

Peeters 2013

Peeters, M., 'Climate Change, Targets and Trade. An EU Law Perspective on the Preferential Treatment of International Competing Industries', in Van Asselt, M., Everson, M. & Vos, E., (eds.), *Trade, Health and the Environment. The European Union Put to the Test*, London/New York: Routledge, 2013, p. 133-157.

Prechal 2006

Prechal, S., *Directives in EC Law*, 2nd edn., Oxford: Oxford University Press, 2006.

Scott 2011

Scott, J., 'The Multi-Level Governance of Climate Change', in Craig, P. & de Búrca, G. (eds.), *The Evolution of EU Law*, 2nd edn., Oxford: Oxford University Press, 2011, p. 805-835.

Sheldon 1998

Sheldon, J.C.H., 'Environmental Effects of Codecision Under the Maastricht Treaty', *Boston College International and Comparative Law Review*, 1998, Vol. 21, p. 247-259.

Sorell & Sijm 2003

Sorell, S. & Sijm, J., 'Carbon Trading in the Policy Mix', *Oxford Review of Economic Policy*, 2003, Vol. 19, p. 420-437.

Van Kempen 2012

Van Kempen, J., 'Countering the Obscurity of Obligations in European Environmental Law: An Analysis of Article 4 of the European Water Framework Directive', *Journal of Environmental Law*, 2012, Vol. 24, p. 499-533.

Van Rijswick 2012

Van Rijswick, H.F.M.W., 'The Road to Sustainability: How Environmental Law can deal with Complexity and Flexibility', *Utrecht Law Review*, 2012, Vol. 8, p. 1-6.

Vogel 2004

Vogel, D., 'Trade and the Environment in the Global Economy', in Vig, N.J. & Faure, M. (eds.), *Green Giants? Environmental Policies of the United States and the European Union*, Cambridge (MA): The MIT Press, 2004, p. 231-252.

Vogler 2005

Vogler, J., 'The European contribution to Global Environmental Governance', *International Affairs*, 2005, Vol. 81, p. 835-850.

Vos 2004

Vos, E., 'Antibiotics, the Precautionary Principle and the Court of First Instance', *Maastricht Journal of European and Comparative Law*, 2004, Vol. 11, p. 187-200.